

Art Unit: 1631

CLAIMPTO

WNP

12/21/2004

32. (Currently Amended) A method for treating or preventing an infection caused by Gram positive bacteria in a patient comprising administering to the patient a therapeutically or prophylactically effective amount of a pharmaceutical composition comprising: [[,]]

~~wherein the pharmaceutical composition comprises at least one of a monoclonal chimeric or humanized antibody having specificity to lipoteichoic acid of Gram positive bacteria and, or a fragment, region, or derivative of a variable region of the monoclonal-chimeric or humanized antibody having specificity to lipoteichoic acid; [[,]] and~~

a pharmaceutically acceptable carrier, ~~and~~

wherein the monoclonal chimeric or humanized antibody, fragment, region, or derivative of the variable region thereof

- (a) binds to lipoteichoic acid at a level that is twice background or greater, and
- (b) enhances the ~~opsonization~~ opsonophagocytosis of Gram positive bacteria by 75% or more.

34. (Previously Presented) The method of claim 32, wherein the monoclonal chimeric or humanized antibody is Hu96-110.

36. (Currently Amended) The method of claim 32, wherein the monoclonal chimeric or humanized antibody, fragment, region, or derivative of the variable region thereof further recognizes a peptide mimic of the lipoteichoic acid epitope binding site, wherein the peptide mimic comprises ~~binds to~~ a peptide sequence chosen from:

W R M Y F S H R H A H L R S P (SEQ ID NO: 1) and

W H W R H R I P L Q L A A G R (SEQ ID NO: 2).

45. (New) The method of claim 32, wherein the monoclonal antibody is chimeric.

46. (New) The method of claim 45, wherein the monoclonal antibody is a chimeric IgG antibody.

47. (New) The method of claim 32, wherein the chimeric antibody comprises a heavy chain constant region from an IgM or IgA antibody.

48. (New) The method of claim 32, wherein the monoclonal antibody is humanized.

49. (New) The method of claim 32, wherein the Gram positive bacteria is selected from the group consisting of: *Staphylococcus epidermidis*; *Staphylococcus aureus*; *Staphylococcus mutans*; *Staphylococcus mutans*; *Staphylococcus faecalis*; and a combination thereof.

50. (New) The method of claim 49, wherein the Gram positive bacteria is *Staphylococcus epidermidis* or *Staphylococcus aureus*.

51. (New) The method of claim 32, wherein the chimeric monoclonal antibody comprises a light chain selected from a kappa chain, a lambda chain, and both.

52. (New) The method of claim 32, wherein the fragment comprises at least one of Fab, Fab', F(ab')₂, and SFv.

37. (Currently Amended) A method for treating or preventing an infection caused by Gram positive bacteria in a patient comprising administering to the patient a therapeutically or prophylactically effective amount of a pharmaceutical composition comprising: [[.]]

~~wherein the pharmaceutical composition comprises~~ at least one of a monoclonal chimeric or humanized antibody having specificity to lipoteichoic acid of Gram positive bacteria and, or a fragment, region, or derivative thereof of a variable region of the monoclonal-chimeric or humanized antibody having specificity to lipoteichoic acid: [[.]] and

a pharmaceutically acceptable carrier, ~~and~~

wherein the monoclonal chimeric or humanized antibody, fragment, region, or derivative of the variable region thereof bind to further recognizes a peptide mimic of the lipoteichoic acid epitope binding site, wherein the peptide mimic comprises a peptide sequence chosen from:

W R M Y F S H R H A H L R S P (SEQ ID NO: 1) and

W H W R H R I P L Q L A A G R (SEQ ID NO: 2).

39. (Previously Presented) The method of claim 37, wherein the monoclonal chimeric or humanized antibody is Hu96-110.

42. (Previously Presented) A method for treating or preventing an infection caused by Gram positive bacteria in a patient comprising administering to the patient a therapeutically or prophylactically effective amount of a pharmaceutical composition, wherein the pharmaceutical composition comprises a peptide encoded by DNA of the variable region of the anti-lipoteichoic acid antibody of Figure 12, or by a sequence that is at least 70% homologous to that DNA, and a pharmaceutically acceptable carrier.

43. (Previously Presented) A method for treating or preventing an infection caused by Gram positive bacteria in a patient comprising administering to the patient a therapeutically or prophylactically effective amount of a pharmaceutical composition, wherein the pharmaceutical composition comprises a peptide characterized by amino acids corresponding to one or more of the Complementarity Determining Regions of the variable regions of the anti-lipoteichoic acid antibody of Figure 12, or amino acids that are at least 70% homologous to the Complementarity Determining Regions.

44. (Previously Presented) The method of claim 43, wherein the Complementarity Determining Regions are derived from MAB 96-110.